PREMIUMS AND DISCOUNTS IN TRUST ACCOUNTS

WHEN a trustee has bought bonds, or other securities calling for the payment of a fixed sum at a fixed time, at a premium or at a discount, how should he account for the premium or the discount as between the person entitled to the income of the trust fund and the person entitled to the principal? It is assumed that the point is not covered by directions in the trust instrument, for such directions are of course conclusive. It is also assumed that the investment was a proper one for the trustee to make. The competing parties may conveniently be distinguished as life tenant and remainderman. The debtor's periodic payment may be called the coupon.

Is the coupon on a premium bond pure income, or is so much of it principal as is required to make good the decrease in the bond's value caused by the approach of maturity? Is the coupon on a discount bond the whole of the income, or is the increase in the bond's value caused by the approach of maturity a part of income also? Should premium and discount, in other words, affect only principal, decreasing it in the one case and increasing it in the other, or should the principal be kept constant while the effect of premium and discount is absorbed by income?

In dealing with premiums, and also in dealing with discounts, the possible courses are of three sorts. If the decrement and increment involved belong to principal, the matter is very simple: ignore the premium and the discount. Pay to the life tenant the full coupon on the premium bond, the coupon and no more on the discount bond. The life tenant will get the apparent income on both investments. At the maturity of the bonds the remainderman will find his fund diminished by the amount of the premium, and increased by the amount of the discount. If the decrement and increment do not belong to principal, there are alternatives. The full coupon on the premium bond may be paid into principal until the amount of the premium has been so paid, and to the life tenant

afterwards: or the premium may be amortized by paying out of the coupon into the fund, while the trust estate holds the bond, periodic contributions which will efface the premium in the time the bond has to run. In the case of the discount bond, the life tenant may be paid, in addition to the coupon, either the actual increment in value due to the approach of maturity, when the bond is sold or paid and the increment realized: or the theoretical periodic increment in value, without waiting for it to be realized.

The authorities regarding premiums are divided. Mr. Justice Holmes said in 1883, "The English cases go the whole length of deciding that, whenever a fund is held upon an authorized permanent investment, the tenant for life receives the entire actual income"; [1] that is, the entire apparent or gross income. That is still the law of England.[2] When the question first arose in America, the

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[1] Hemenway *v.* Hemenway, 134 Mass. 446, 450.

[2] Meyer *v.* Simonsen, 5 De G. & Sm. 723 (1852). *Dictum* that "Where the subject-matter of the bequest is either invested in the funds or in some security of which the court approves, there conversion is not necessary, and the tenant for life takes the interest of the fund as it is" (page 726).

Hume *v.* Richardson, 4 De G., F. & J. 29 (1862), answered in the affirmative inquiries whether trustees might retain certain investments, including East India stock received from the testator, and make more investments in the same securities; and "whether the tenant for life is entitled to the whole income arising from such investments" (page 33).

East India stock was an authorized investment for trustees, STAT. 22 & 23 VICT. c. 35, § 32 (1859). This "stock" amounted, for all purposes of this discussion, to bonds. STAT. 3 & 4 WILL. IV, c. 85, which withdrew from the East India Company the beneficial ownership of its property, had charged the Indian revenues with the payment of a fixed "dividend" of 10½ per cent to the holders of the stock (§ 11), and had provided that the stock should be subject to redemption by Parliament, on or after April 30, 1874, at the rate of two pounds sterling for every pound of stock. (§ 12). That the stock in the early sixties stood at a premium over its redemption value, see, *e. g.*, Cockburn *v.* Peel, 3 De G., F. & J. 170 (1861), and Equitable Reversionary Interest Society *v.* Fuller, 1 J. & H. 379 (1861), where counsel said: "East India stock is redeemable in about twelve years at a price 9 per cent below its present market value" (page 380).

Brown *v.* Gellatly, L. R. 2 Ch. App. 751 (1867). On both East India bonds and stock, and other securities which the testator had authorized as permanent investments, whether left by the testator or bought after his death, the "tenant for life is . . . entitled to the specific income of the securities, just as if they had been £3 per Cent Consols."

These were the cases chiefly relied on by Mr. Justice Holmes. The English practice is also shown by discussion in some cases of the "loss to the reversion," which these securities involve; the fact of such a loss means, of course, that the premium is not amortized. See Equitable Reversionary Interest Society *v.* Fuller, 1 J. & H. 379, and Cockburn *v.* Peel, 3 De G., F. & J. 170, in which the fact that a loss to the remainder-

tendency here too was to disapprove of amortization. In 1883 in *Hemenway* v. *Hemenway* [3] the Massachusetts court, while it distinctly refused to lay down any general rule, held that a trustee who had not gone out of his way to injure the remainderman had done well in paying the full coupon to the life tenant. In 1889 the Maryland court disapproved of investigation.[4] The Kentucky court in 1892 decided squarely that the life tenant was entitled to the whole coupon.[5] As recently as 1904 the Supreme Court of Pennsylvania followed an old decision of the Orphans' Court of Philadelphia [6] to the same effect, but lamented that "No rule on this subject can be stated that in all cases will produce an equitable result." [7] And in 1909 the Court of Appeals of the District of Columbia disapproved in general terms of amortization.[8] Slight evidence of a testator's intention that the life tenant shall have the full coupon has been accepted in Massachusetts [9] and in New York.[10]

But the tide turned long ago, and has set strongly in the direction of amortization. In 1886, three years after *Hemenway* v. *Hemenway*, the Massachusetts court approved of the action of trustees who had amortized premiums.[11] The Hemenway Case was

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man would be involved was the ground for refusing to direct an investment in East India stock.

The present Trustee Act (Trustee Act, 1893, 56 & 57 VICT. c. 53) evidently contemplates this state of law, for it does not authorize trustees to buy redeemable "stock" either (1) when it has less than fifteen years to run, or (2) at a premium of more than 15 per cent [§ 2 (2)].

[3] 134 Mass. 446.

[4] Whitridge, Trustee, *v.* Williams, 71 Md. 105 (1889). Apparently the bonds involved were not bought by the trustee, but received by him as part of the original trust fund; yet they seem not to have been set off to that fund by the testator himself, and their case is therefore very like that of bonds which the trustee buys. See note 18.

[5] Hite's Devisees *v.* Hite's Executor, 93 Ky. 257, 20 S. W. 778.

[6] Furness's Estate, 12 Phila. (Pa.) 130 (1878).

[7] Penn-Gaskell's Estate (No. 2), 208 Pa. 346, 57 Atl. 715 (1904).

[8] American Security and Trust Co. *v.* Payne, 33 App. D. C. 178. The court decided simply that a life tenant who had a power of appointment should not be charged with premiums — a proposition which is quite reconcilable with the practice of amortization where no power of appointment is involved. The court acted under the mistaken impression that the weight of authority disapproved of amortization (page 188), and its *dicta* went the full length.

[9] Shaw *v.* Cordis, 143 Mass. 443, 9 N. E. 794 (1887). (Direction to invest in particular bonds.)

[10] Matter of Hoyt, 160 N. Y. 607, 55 N. E. 282 (1899). See note 13.

[11] New England Trust Co. *v.* Eaton, 140 Mass. 532, 4 N. E. 69.

not in terms overruled, but the whole reasoning of the majority was now counter to it. Judge Holmes, who had written the opinion in the earlier case, remained opposed to amortization and accordingly dissented strongly; and of the three other judges who sat in both cases, two concurred in his dissent. It was laid down by the majority that:

"There can ordinarily be no better test of the true income which a sum of money will produce, having regard to the rights of both the tenant for life and the remainderman, than the interest which can be received from a bond which sells above par and is payable at the termination of a fixed time, deducting from such interest, as it becomes due, such sums as will at maturity efface the premium." [12]

The Hemenway Case, it was said, had merely held that the payment of the full coupon to the life tenant was not under the particular circumstances of that case an abuse of discretion. Amortization is now the rule in Massachusetts, though it is not clear that a trustee who should exercise an honest discretion in the opposite direction would be called to account.[13] In New York the change of front began between 1899, when slight evidence of an intention against amortization was allowed to preclude it,[14] and 1901, when evidence equally slight was accepted as showing an intention in favor of amortization.[15] The change was completed in New York in 1907, when it was decided, by four judges against three, that premiums must be amortized unless a contrary intent be "expressed in the very clearest manner." [16] Since 1900 three courts, those of Connecticut, New Jersey, and Wisconsin, have passed upon the question unprejudiced by previous decisions in their own states. All have decided in favor of amortization; [17] and

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[12] New England Trust Co. *v.* Eaton, 140 Mass. 532, 4 N. E. 539.

[13] *Cf.* PERRY ON TRUSTS, 6 ed., 897, note.

[14] Matter of Hoyt, 160 N. Y. 607, 55 N. E. 282. The circumstances chiefly relied on were that the life tenant was the daughter of the testator, and was not provided for except by the trust fund, while the remaindermen were nephews and nieces of the testator.

[15] New York Life Insurance and Trust Co. *v.* Baker, 165 N. Y. 484, 59 N. E. 257. It is not clear upon what "language of the clause creating" the trust the court relied, perhaps on the phrase giving "the whole of said share" to the remaindermen.

[16] Matter of Stevens, 187 N. Y. 471, 476, 80 N. E. 358.

[17] Curtis *v.* Osborn, 79 Conn. 555, 65 N. E. 968 (1907). (Annual deductions from the coupons not having been made, as, it was said, might properly have been done,

that rule, which is distinctly the modern rule, is supported today by the clear weight of authority.

Nowhere does the approved course consist in deducting the whole amount of the premium from the first coupons. Trustees would seem to have experimented but little with that plan; but it lately came before the Appellate Division in New York, and was held not to be permissible.[18]

The rule does not apply to bonds assessed at a premium which were set off by the creator of the trust as part of the original trust fund. On such bonds the life tenant receives the full coupon, on the theory that, in their case, by "income" the testator meant apparent or gross income.[19]

It has been held that "the privilege of paying before maturity being a contingency for which no calculation can be made, the calling in of the bonds" before maturity "is a misfortune to be borne by the principal, to which the excess of loss over what would have been sustained if the bonds had run to maturity must be charged." [20]

An accidental increase or decrease in the value of trust property belongs, of course, to the fund.[21] But one who is entitled to receive

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the entire amount of the premium was directed to be paid into principal at the maturity of the bonds.)

Ballantine *v.* Young, 74 N. J. Eq. 572, 70 Atl. 668 (1908).

In re Allis's Estate, 123 Wis. 223, 101 N. W. 365 (1904), although the trust will expire before the bonds mature (page 231).

[18] *In re* Schaefer, 165 N. Y. Supp. 19, 30, 176 N. Y. App. Div. 906 (1917).

[19] Connecticut Trust and Safe Deposit Co., Trustee, 80 Conn. 540, 69 Atl. 360 (1908); Hemenway *v.* Hemenway, 134 Mass. 446 (1883); Ballantine *v.* Young, 74 N. J. Eq. 572, 70 Atl. 668 (1908).

The same has been held, namely, that the premium should not be amortized, of bonds received from a testator and set off to the trust fund by his executors. Matter of Fanoni, 88 N. Y. Misc. 442, 152 N. Y. S. 218 (1914). Whitridge, Trustee, *v.* Williams, 71 Md. 105 (1889), *semble.* But in American Security and Trust Co. *v.* Payne, 33 App. D. C. 178, 187 (1909), it was said that bonds which, "while a part of the testator's estate, were not set apart by him as a part of" the trust fund, must "be treated as securities purchased by the executor." This seems the sounder view, as the testators can hardly be regarded as having expressed an intention regarding such bonds.

The trust instrument may, of course, show an intention that premiums should be amortized even in the case of bonds left by the testator. Estate of Wells, 156 Wis. 294, 309–11, 144 N. W. 174 (1914).

[20] 39 Cyc. 420, note 82, Farwell *v.* Tweddle, 10 Abb. N. Cas. (N. Y.) 94 (1881), there cited.

[21] Profit on sale of stocks and bonds: Stewart *v.* Phelps, 71 App. Div. 91, 75 N. Y. S.

the principal of a trust fund is entitled, aside from business gains and losses, to have paid into the fund at the maturity of a bond exactly the amount which was taken out of it to buy the bond. And the tendency of bonds to fall or rise in value in consequence of having been bought at a premium or at a discount is not a matter of business gain or loss: it is a calculable feature of the thing bought. One who is entitled to the "income" or "interest" of a trust fund is entitled to the true interest on a trust bond. True interest on a bond bought at a premium or at a discount is not the amount of the coupons, but that amount minus the premium or plus the discount.[22] Bonds are regularly dealt in on this basis of net yield. The premium bond at maturity may by chance be worth far less than par, but it cannot by any chance be worth more than par. That it will depreciate to the extent of the premium is certain. If, therefore, a loss of principal be what is involved, it is a loss which is certain to occur, one which no combination of good luck and good management can avert. This inevitability means more than that the loss is a strange sort of loss: it means that it is not a loss at all. For people buy premium bonds, and no gambler, let alone a trustee whose investments must be approved by a court, will buy a certain loss. If $120 is paid for a $100 bond, and the promised $100 is received for it at maturity, it is not that there has been a loss of $20, in consequence of which the trust fund must stand reduced: it is that the coupons which have been paid from year to year have constituted not only interest but the repayment of what was taken out of the fund to pay the premium. Premiums should, therefore, be so accounted for as to leave the fund intact.

If wasting property — property, *i. e.*, that must in the course

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526 (1902); aff'd, on opinion below, 173 N. Y. 621. Of stocks: Kemble's Estate, 201 Pa. 523, 51 Atl. 310 (1902). As to profits, see 39 Cyc. 444; PERRY ON TRUSTS, 6 ed., § 546.

In 39 Cyc. 418, it is said: "The loss is to be apportioned between the life tenants and the remaindermen." The meaning is not, of course, that any portion of the decrease in the value of an investment is made up to principal out of income. The meaning is, on the contrary, that principal suffers not only the whole of the loss in the value of the investment, but is also obliged, when that loss has been accompanied by a loss of income, to make a contribution to income. See Meldon *v.* Devlin, 31 N. Y. App. Div. 146, aff'd in 53 N. Y. S. 172, 167 N. Y. 573.

[22] Accountants look at the matter in this light. *Cf.* WILLIAM MORSE COLE, ACCOUNTS, THEIR CONSTRUCTION AND INTERPRETATION, rev. ed., 185, 195; ERNEST BROWN SKINNER, MATHEMATICAL THEORY OF INVESTMENT, 133, 134.

of time be exhausted, like leaseholds, tangible personalty, or terminable annuities — is part of a trust estate, and it is impossible to spell out an intent that the life tenant shall have its gross annual produce, it is the trustee's duty (pending conversion) to pay him only so much of that produce as is equal to normal interest on the value of the property, and to treat the balance as principal.[23] This is because it is "assumed in the absence of direction to the contrary that the testator intended that all the beneficiaries should enjoy the whole property in succession." [24] This principle would seem to cover premiums, and require their amortization in some form, when no contrary intention is expressed. It may be not unreasonable to assume an intent against amortization when the bonds are left by the testator,[25] but there is no more suggestion of such an intent regarding bonds which the trustees buy than regarding any sort of wasting property, and yet the English and some American courts refuse amortization even in the case of such bonds. A difference of an external sort between premium bonds and what are recognized as wasting investments is that premium bonds are often a perfectly proper investment for a trustee to make; indeed, except when they are so, the question discussed in this article does not arise: while wasting property, so far from being a proper investment, must in the absence of special authority be converted by the trustee into a "permanent" form.[26] Irrelevant as this distinction is, it seems to lie behind the English cases. When investments in premium bonds began to be authorized in England,[27] the courts disliked the statute and frequently

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[23] Howe *v.* Earl of Dartmouth, 7 Ves. 137 (1802). *In re* Carter, 41 W. R. 140 (Ch. Div. 1892); Wentworth *v.* Wentworth, 1900, A. C. 163; *In re* Woods, 1904, 2 Ch. 4; Cairns *v.* Chaubert, 9 Paige (N. Y.) 160 (1841); *dictum* in Frankel *v.* Farmers' Loan and Trust Co., 152 N. Y. App. Div. 58, 61, 136 N. Y. S. 703 (1912). PERRY ON TRUSTS, 900, note.

It has been held in England that the rule of conversion does not apply to trusts created by deed; 28 HALSBURY, LAWS OF ENGLAND, 32. A specific bequest is treated as showing an intent that the life tenant shall have the full produce; see PERRY ON TRUSTS, 6 ed., §§ 451–56, 547; 28 HALSBURY, LAWS OF ENGLAND, § 1.

[24] 28 HALSBURY, LAWS OF ENGLAND, 31.

[25] And set off by him as part of the trust estate. See note 18. Bonds so set apart by the testator correspond, of course, to wasting property which is specifically bequeathed; it is therefore consistent (see note 22) to give their gross produce to the life tenant.

[26] 28 HALSBURY, LAWS OF ENGLAND, 31; PERRY ON TRUSTS, § 547.

[27] STAT. 22 & 23 VICT. c. 35, § 32 (1859), authorized trustees who were not for-

exercised their discretion[28] by refusing to direct trustees to invest in them;[29] but when they felt obliged to recognize the propriety of the investment in a given case, it did not occur to them that there was anything that could still be done for the remainderman. They apparently reasoned — These investments, being declared to be proper, are proper with all their obvious incidents; but one of their incidents is that they involve a diminution of principal; therefore a diminution of principal, when so produced, is proper and should not be obviated.[30] The reasoning is inadequate, for to authorize a given investment is quite a different thing from directing that it be treated in such a way as to involve a loss to principal. There was nothing to prevent the courts from resorting to amortization to avoid the loss. And the result of the course they took is curious. A "wasting investment" is prevented from involving a loss to principal, and yet must be converted; while a premium bond is made to involve a loss to principal, although it is a proper investment for a trustee to make.[31]

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bidden to do so by their trust instruments to invest, among other things, in East India stock, which was redeemable, sold at a premium, and amounted for present purposes to bonds. See note 2.

(The Trustee Act, 1893 (56 & 57 VICT. c. 53), § 2, expressly authorizes investment in certain securities referred to (described as stocks), "notwithstanding that the same may be redeemable, and that the price exceeds the redemption value.")

[28] Under STAT. 23 & 24 VICT. c. 38, § 10 (1860).

[29] *E. g.*, Cockburn *v.* Peel, 3 De G., F. & J. 170 (1861); Waite *v.* Littlewood, 41 LAW J. REP. (N. S.) Chanc. 636 (1872); LAW REP. 8, Chanc. 70.

[30] *Cf.* Equitable Reversionary Interest Society *v.* Fuller, 1 J. & H. 379 (1861), where the question was simply whether to make an order for investment in East India stock: "The difficulty I have felt throughout is, that there is a considerable injury to those interested in the capital in all investments of this description. . . . In the course of a few years, East India stock may be redeemed at a reduction of 9 per cent upon its present market value, which will be a clear loss of capital. On the other hand, if I do not grant this application, there is no possible case in which it could be done. . . . I feel myself bound to give some effect to the intention of the Legislature, in compliance with which the judges have sanctioned these investments. . . . As the change of investment is a clear loss to the reversion, the costs must come out of the income." (Sir W. Page Wood, V. C.)

In Cockburn *v.* Peel, 3 De G., F. & J. 170 (1861), in which an order for investment in East India stock was refused because of the loss to the remainder that would result, Lord Campbell said: "An offer is made to guard against this peril by a sinking fund; but I do not think that this would be authorized by the statute under which the transfer is asked, and I do not think that the transfer ought to be directed where such an expedient is necessary."

[31] This idea that, when once an investment is authorized by law, its whole apparent income should go to the life tenant, may have grown out of the circumstance that

As to the form which the amortization of premiums should take: it seems clear that there should be, as under the prevalent American practice there are,[32] periodic contributions to principal out of the coupon while the trust estate holds the bond. The alternative course of paying the full coupon into the fund until the amount of the premium has been paid in, and to the life tenant afterwards, equally protects the fund from loss, but it may be a great hardship to the life tenant while the deductions are being made. It is sure to be if the bonds are a substantial part of the trust estate. And if the life tenant dies before he has received any income from the bond, injustice as well as hardship has been inflicted on him;[33] for there is no logic in attributing the first coupons entirely to principal and the later ones entirely to income. It is more rational as well as more convenient to regard each coupon as embodying both a payment of interest and a payment of principal.

To determine how much is interest and how much principal, the trustees should begin by finding the rate of interest which the money invested in the bond will actually earn while it remains invested, assuming that the promised payments of coupon and principal are made when they fall due.[34] The bond calls for the payment of a

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for long, in England, the regular trust investment was one on which the apparent income was the real income, namely, 3 per cent consols. As these were permanent, their being bought at a premium resulted in no tendency to diminish in value, and, consequently, the life tenant was entitled to the whole of the periodic payment. New England Trust Co. *v.* Eaton, 140 Mass. 532, 539, 540, 4 N. E. 69.

[32] In New England Trust Co. *v.* Eaton, 140 Mass. 532, 4 N. E. 69; Ballantine *v.* Young, 74 N. J. Eq. 572, 70 Atl. 668; and *In re* Allis's Estate, 123 Wis. 223, 101 N.W. 365, a course of gradual amortization had been adopted by the trustees and was approved by the court. In Matter of Stevens, 187 N. Y. 471, 80 N. E. 358, it was held that gradual amortization should have been adopted, and depreciation to the date of the account was charged to income. In Curtis *v.* Osborn, 79 Conn. 555, 65 N. E. 968, the bonds had matured and been paid before any allowance to principal on account of premium had been made. It was said that "it would have been proper" to make annual deductions from coupon; "the facts in the case at bar do not require us to decide whether the trustees failed in duty in not making such annual deductions," as the whole depreciation can be made up in a lump out of the income of the trust fund. *In re* Schaefer, 165 N. Y. Supp. 19, 176 N. Y. App. Div. 906, deduction of the whole amount of the premium from the first coupons was disallowed.

[33] *Cf. In re* Schaefer, 165 N. Y. Supp. 19, 30, 176 N. Y. App. Div. 906.

[34] The following discussion of the several methods by which the gradual amortization of a premium may be effected is based upon WILLIAM MORSE COLE, ACCOUNTS, THEIR CONSTRUCTION AND INTERPRETATION, rev. ed., chap. 12.

For his criticism of the following discussion, and of the discussion of the calcula-

principal amount at a fixed date and of a definite number of smaller amounts, annually, semi-annually or quarterly, in the meantime. Each one of these amounts has, on the basis of any given rate of interest, a certain present worth; that is, corresponding to each amount there is a certain sum which, invested at compound interest at a given rate, will produce the amount by the time it falls due. This present worth is simply the amount less compound discount at the given rate. The sum of the present worths, at any given interest rate, of the periodic interest payments and the principal sum, is the present worth of the bond at that rate. Extended tables have been worked out showing the present worths of bonds at each of a great variety of assumed rates of interest.[35] The tables take into consideration, necessarily, the nominal interest the bond bears, the number of interest payments per year, and the number of years the bond has still to run; since the number, amount and time of the several payments that are still to be made are the essential factors — together with the assumed rate of interest — in determining present worth. These tables can be worked forward and backward. That is, instead of looking up in the table a given market or other rate of interest and learning the present worth of the bond at that rate, one may look up in the table a given present worth or purchase price and find the rate of interest which the bond will pay. The exact sum paid for the bond can seldom be found in the table, because market quotations are in eighths of one per cent, while theoretical present worths end in all sorts of figures; but the slight difference between the price paid and the nearest present worth to be found in the table (and also the discrepancy caused by buying bonds between interest dates) can readily be accounted for.[36]

The rate of interest which the bond is really to earn is called the basis or basic rate. The basic rate is not the rate at which the bond will pay interest, throughout the term, on the sum originally invested; it is the rate at which it will pay interest on the sums that remain invested from time to time. For the first interest period, interest at this rate will be earned on the whole purchase

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tions involved in the accumulation of discount, I am indebted to Donald English, Assistant Professor of Economics in Cornell University.

[35] *E. g.*, CHARLES EZRA SPRAGUE, EXTENDED BOND TABLES.

[36] See COLE, ACCOUNTS, 179, 184, 195 *ff*.

price of the bond; but the excess of the first coupon over this interest will be a repayment of principal, and the amount that remains invested in the bond — its book value — will be reduced to the extent of this repayment. The next coupon will contain interest at the basic rate on this reduced value only; the remainder will be a repayment of principal.

When the trustee has found the basis, he may effect the gradual amortization of the premium in one of three ways. (1) The correct method is, clearly, to pay the life tenant interest at the basic rate on the book value of the bond — which is of course a decreasing value; put into the amortization fund what remains of the coupons after deducting this interest; pay the life tenant whatever interest the amortization fund earns; and allow the amortization fund to accumulate arithmetically, without interest, for the remainderman. The life tenant will receive a decreasing income from the bond and an increasing income from the amortization fund, and the sum of these will always be the income that is actually earned. Since what is subtracted from the book value of the bond, and no more, is added to the amortization fund, the sum of the amortization fund and the current book value will be constant, and the total income will tend to be constant: it will vary only to the extent that the amortization fund earns interest at a different rate from the bond. And since the rate of interest which the bond pays on the money that remains tied up in it has been determined at the start, it follows by hypothesis that, if interest at that rate on that amount is paid to the life tenant out of the coupons, the balance of the several payments which the bond debtor makes will in the aggregate just replace the principal. Under this method, therefore, the amortization fund at maturity will amount exactly to the premium. "This scheme is perfect." [37]

A comparatively rough and ready method is (2) to pay to the life tenant, out of the coupon, interest at the basic rate on the amount originally invested in the bond, and pay the balance of the coupon into the fund which is to amortize the premium. The interest which the amortization fund earns is then paid into that fund, and not to the life tenant. This method has the advantage of giving the life tenant an unvarying income. If the amortization fund happens to earn interest at exactly the basic rate, the life

[37] Cole, Accounts, 189.

tenant's share will evidently be the same as under the first method, since he will receive interest at the same rate on the same total amount. It follows that the amortization fund's share will be the same as under the first method;[38] which is to say that the premium will be just wiped out at maturity. But all this assumes that the amortization fund will always earn the same rate of interest that the bond earns, and this second method is just only when that coincidence occurs. For in whatever form the trust fund is invested, the life tenant is entitled to the interest which the fund actually earns, and the remainderman to no more nor less than his principal. But, as the amortization fund grows and the book value of the bond is reduced by the successive amortizations, the whole sum that was once invested in the bond is no longer invested in it: the amount of the several amortizations has been repaid by the bond debtor and stands invested in other ways. The amortization fund is as much a part of the trust estate as any other, and the life tenant should receive the interest that it earns. If it is earning four or six per cent, the fact that it would be earning five if it were still invested, as it is not, in the bond, is no reason for paying the life tenant five instead of the four or six that it is earning. The principal, too, is practically certain to be either more or less than replaced if its replacement is made to depend, as it does under this second method, on the uncertain interest which the amortization fund can earn.

A third method, in some use because of its simplicity, is (3) to amortize the entire premium in equal periodic instalments; as, for example, a ten-dollar premium on a bond with ten years to run is amortized at the rate of a dollar a year. The interest on the amortization fund is paid to the life tenant, as it should be, and the principal is exactly replaced at maturity, as it should be. But in

[38] Under the first method the amortization fund receives the whole of the coupon less interest on the latest book value of the bond; under the second, it receives the coupon less interest on the purchase price of the bond. The amount it receives from the coupon is therefore less, under the second method, to the extent of interest at the basic rate on the difference between purchase price and last book value. But that difference is exactly what the amortization fund already contains; and interest on the amortization fund, under the second method, is paid into the fund. The amortization fund therefore receives in one form what is denied to it in another, so long as the fund earns interest at the basic rate.

For a tabular illustration of the identity of the two methods while the fund earns interest at the basic rate, see COLE, ACCOUNTS, 186, 188.

the early years, before amortization has gone far, more money is invested in the bond, and consequently a larger fraction of the coupon consists of interest than in the later years. It follows that this method of equal and unsupplemented payments to the life tenant gives him first less interest than the bond is earning, and then more; first too little and then too much. Even if he lives till the maturity of the bond, so that the deficiency is matched by the excess, having a larger income than he is entitled to in the later years may be no compensation to him for having a smaller income than he is entitled to in the earlier; and, if he dies before the bond matures, he is not made even mathematically whole.

The decided cases are obscure and conflicting as to the particular variety of gradual amortization which should be adopted,[39] and contain little or no discussion of the point.

With respect to accounting for discounts, there are practically no authorities. Forty years ago, before the modern doctrine concerning premiums was developed, the Surrogate of New York County held that the remainderman and not the life tenant was entitled to profit from the maturing of bonds bought at a discount. No distinction between the gains in suit and any purely accidental increase in the value of an investment occurred to the court.[40]

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[39] The method approved in Massachusetts and Wisconsin is either (1) or (2); *i. e.*, one of the two methods which involve the use of bond tables, and appears to be (1), as nothing is said of paying interest on the amortization fund, or anything but the successive deductions from coupon, into that fund. New England Trust Co. *v.* Eaton, 140 Mass. 532, 4 N. E. 69; *In re* Allis's Estate, 123 Wis. 223, 230, 101 N. W. 365.

(2) The second method seems to be the one to which the Connecticut court leans: "It would have been proper for the trustee to have paid to the life tenants annually out of this $600 such sum only as would leave a balance which, when properly invested year by year, would have amounted to" the premium at maturity. Curtis *v.* Osborn, 79 Conn. 555, 560, 65 N. E. 968. This was *obiter*, however.

(3) The third method seems to have been approved in New Jersey. The trustees had "set aside out of each installment of interest received from said bonds a sum sufficient, with other like installments similarly retained, to make up at the maturity of the said bonds a sum equal to the premium." As to bonds bought by the trustees, this course was approved. Ballantine *v.* Young, 74 N. J. Eq. 572, 70 Atl. 668.

It is by no means evident that any court would insist upon any particular one of the three methods if a different method of gradual amortization were presented to it for approval.

[40] Townsend *v.* U. S. Trust Co., 3 Redfield Sur. 220 (1877). A trustee had invested for each of three life beneficiaries $5,000 in United States bonds; and "when said stock became due and payable, the said trustee sold the same and realized therefor the sum of $5,400 upon each of said three trust funds of $5,000." He thereupon invested $4,962.50, for each beneficiary, in $5,000 of United States bonds, which

This was parallel to the early and now superseded tendency regarding premiums, and furnishes practically no evidence of the present law of New York.[41] Mr. Justice Holmes, speaking for the Massachusetts court in *Hemenway* v. *Hemenway*,[42] said *obiter* that no rule for discounts, and certainly none which would give the benefit of them to life tenants, could be laid down; but this was interwoven with what was said in that case, and in effect overruled in *New England Trust Co.* v. *Eaton*,[43] against the amortization of premiums. When *New England Trust Co.* v. *Eaton* established the amortization rule for premiums, the dissenting opinion repeated the *dicta* of *Hemenway* v. *Hemenway* concerning discounts, and indicated that they fell with the rest of *Hemenway* v. *Hemenway*. The Court of Appeals of Kentucky, which dissents from the amortization rule as to premiums, has delivered a *dictum* against giving life tenants the benefit of discounts.[44]

The tendency of a discount bond to rise to par as it approaches maturity is less regularly visible than the tendency of a premium bond to fall to par, because unfavorable business or market conditions may counteract it and prevent the bond from rising; but the tendency is always present. The bond bought at 90 is some entity's obligation to pay 100; and obligations have a tendency, other things being equal, to be discharged. The case is not like that of stock in the modern sense of that word. Stock bought at 90 is nobody's obligation to pay 100. If stock is worth 90 today, and all conditions remain as they are, it will be worth 90 in ten years. If a bond with ten years to run is worth 90, and all conditions remain as they are, it will be worth 100 in ten years. The stock which stands below par has on that acount no more a tendency to rise than it has a tendency to fall. The bond which stands below

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rose in value above par. The life beneficiaries petitioned for an order directing the trustee to pay them the two gains of $400 and $37.50. The court denied the petition on the ground that the gains belonged to principal.

[41] In Matter of Gerry, 103 N. Y. 445, 451, 9 N. E. 235, the Court of Appeals said of Townsend *v.* U. S. Trust Co. and another case, "These decisions accord with our views"; but the court of appeals was not passing upon, or apparently intending to discuss, gains resulting from discounts.

[42] 134 Mass. 446 (1883).

[43] 140 Mass. 532, 4 N. E. 69 (1886).

[44] Hite's Devisees *v.* Hite's Executor, 93 Ky. 257, 269, 20 S. W. 778 (1892).

PERRY ON TRUSTS, 6 ed., § 546, says: "If the securities mature or are sold, the increased value belongs to the remainder," but his citations include no cases of discount.

par may fall, but it has a tendency to rise, since if nothing untoward occurs it will rise. If this constituted a tendency to yield a profit, discount bonds would be so popular that they would soon cease to be discount bonds. If $90 is paid for a bond, and the promised $100 is received for it at maturity, it is not that there has been a profit of $10, in consequence of which the trust estate should stand increased: it is that the coupons which have been paid from year to year have been only a part, and the $10 are the rest, of the income which the bond was expected to produce and has produced.

The real cause of the failure of some courts to recognize that the coupons on premium bonds contain principal, and that the sale or redemption price of a discount bond contains income, is the circumstance that periodic payments are commonly income and a lump payment is commonly principal. Nothing could be more accidental or less significant. There is nothing to prevent an arrangement by which a part of a principal sum — or the whole of it, as in the case of true annuities — is repaid in periodical instalments, or an arrangement by which a part or the whole of income is withheld and accumulated for years and paid in a lump. If it were practicable to divide each coupon on a premium bond into two coupons, one labeled interest and one principal, and to divide the sum received on the sale or redemption of a discount bond into two checks, one labeled principal and the other accumulated interest, no one would have difficulty in recognizing that the sums were what they were called. The fact that the dividing and labeling is left for the recipient to do does not affect the nature of the payments. That which in fact constitutes a repayment of purchase price is principal, and that which is an expected increase over purchase price is income.

The disapproval of the accumulation of discounts has all emanated from courts which certainly or probably took the anti-amortization view of the premium question. It therefore strengthens rather than weakens the presumption that courts which amortize premiums will give life tenants the benefit of discounts. That presumption is strong. The two processes are not only essentially alike: the arguments against them are alike, and a logical court which finds these arguments insufficient as to premium should also find them insufficient as to discount. Thus:

1. It may be said that a discount does not necessarily mean that the coupon is small so that the life tenant, if he is not given the benefit of the approach to maturity, will get a small return. But it was said with great force by Mr. Justice Holmes, in *New England Trust Co.* v. *Eaton*,[45] that a premium does not necessarily mean that the coupon is large so that the life tenant, if the premium is not amortized, will get a large return. The answer to both arguments is of the same sort. When a given proper investment has been made, the life tenant is entitled, not to a small, moderate or large income from the investment, but to the income which it happens to bring in. Payments should be made out of the coupon into principal to amortize a premium, not because the coupon is too large for the life tenant's good, but because it is not all income. Similarly, the amount of a discount, if it is realized, should be paid to the life tenant in addition to his coupon, not on any theory that the coupon is small, but because, however large it is, it is not the whole of the income.

2. It may be said that bonds sell at a discount not so often or so much because the interest rate is low as because of inferiority in respect to safety, marketability and term; and that the increment of value should therefore profit the remainderman, who chiefly suffers from the disadvantages which that increment offsets. What force there is in this argument is equally present in the corresponding objection to the amortization of premiums — the objection, namely, that bonds sell at a premium not so much because the interest rate is high as because of superiority in safety, marketability and term, and that the decline in the value of the bond should therefore fall upon the remainderman, who chiefly profits from the advantages which the decline offsets. The Pennsylvania court is impressed by this argument, and refuses to amortize premiums.[46] Similarly Justice Holmes said in the dissenting opinion in *New England Trust Co.* v. *Eaton*,

"Within a few years the first mortgage four per cent bonds of a flourishing railroad have sold at eighty-five, while at the same time United States four per cents stood at one hundred and twenty or more, and city fours of a high rank stood at about par." [47]

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[45] See note 42, *supra*.

[46] Penn-Gaskell's Estate (No. 2), 208 Pa. 346, 57 Atl. 715 (1904).

[47] 140 Mass. 532, 547, 4 N. E. 69.

These great differences in price he accounted for largely by differences in supposed safety; and his conclusion was that the burden of premiums should fall on remaindermen rather than on life tenants. These objections to amortization and accumulation make of trust accounting a matter of rewards and penalties: rewards for risks and penalties for safety. If that attitude were defensible, it would not follow that the whole retribution should fall upon the remainderman, for the life tenant also is concerned with safety. But the attitude is indefensible. The duty of trustees and of the courts which supervise them is not to reward those who bear more risk or penalize those who bear less, but to turn over principal to whom principal is due and income to whom income. The coupon on a premium bond being part principal, that part should go to the remainderman, however safe the investment, however largely the premium was paid for safety, and however much more important safety may be to a remainderman than to a life tenant. The increase in the value of a discount bond being income, that increase should go to the life tenant, however unsafe the investment, even if the discount reflects the unsafety. In the same opinion Mr. Justice Holmes said: "The necessary premise for casting the whole burden of repaying premiums upon interest is that the premium is paid solely for interest above the market rate." Not at all. It should by all means be granted that the trustee who buys a premium bond is likely to pay something for safety; but that is merely to say that he makes an investment on which the income is less than it would be if it were less safe. It is none the less this very income, and not that something more which the coupon represents, which should go to the person entitled to income. If a trustee is, as may well be granted, influenced by the idea of a liberal income in buying a discount bond, the life tenant is none the less entitled to the whole of the income, and not merely to that part of it which comes in the shape of coupons.

3. On account of business conditions general or particular, the value of a bond bought at a discount may not increase for a time or at all. This is true, but not truer than that the value of a bond bought at a premium may not diminish for a time or while the trust estate holds it, one of the considerations which led the Pennsylvania court to reject amortization.[48] But in *New England Trust*

[48] See note 44, *supra*.

Co. v. *Eaton*,[49] income was properly charged with premiums although the bonds had actually increased in value. The life tenant got no right to a part of the remainderman's principal from the fact that the remainderman had made a profit and did not appear to need the money. If the expected increase in the value of a discount bond is not realized, a question arises; but if the increase is realized, the life tenant should not be deprived of it on the ground that it might not have come in. The fact that it may not come in no more makes it profit than the fact that a premium bond may rise for a time prevents its coupons from being part principal. If whatever is uncertain were profit, nothing would be income.

4. It is sometimes suggested that amortization is unnecessary because, if trustees are impartial, premiums and discounts and their accompanying advantages and disadvantages will tend to balance each other, and, if trustees are not impartial, they can be called to account. Thus, Judge Holmes, speaking for the Massachusetts court in *Hemenway* v. *Hemenway*, said:

> "Our refusal to lay down a general rule does not put the capital in danger of being exhausted. . . . The answer to the extreme cases supposed on behalf of the remaindermen is, that, if they were conceivable where the trustee was acting in good faith, they would be inconsistent with that reasonable discretion which he must exercise at his peril. . . . We have no reason to doubt that, taking the whole administration of the trust into account, the balance has been evenly held between the two parties, and the relation between the remaindermen and the life tenants is such that there is less call than there might be in some other cases for treating the life tenants with great strictness." [50]

This suggestion of a balancing of course has validity only if there is no good reason for regarding life tenants and remaindermen as definitely entitled to accumulation and amortization, and it is submitted that there is excellent reason for regarding them as so entitled.

One objection which is made to the amortization of premiums becomes an argument, as far as it goes, in favor of giving life tenants the benefit of discounts. It is suggested in some cases that a wish

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[49] See note 42, *supra*.

[50] Hemenway *v.* Hemenway, 134 Mass. 446, 452, 453 (1883). *Cf.* Hite's Devisees *v.* Hite's Executor, 93 Ky. 257, 269, 20 S. W. 778 (1892); American Security and Trust Co. *v.* Payne, 33 App. D. C. 178, 188 (1909).

on the part of the creator of a trust to provide for someone now is more impressive and presumably more earnest than a wish to provide for someone else later: in other words, that other things being equal, life tenants should be preferred to remaindermen. The Pennsylvania court and the Massachusetts court have been influenced by this idea.[51] To favor the life tenant, of course, while it requires that premiums be not amortized, requires that discounts be accumulated.

Discounts as well as premiums should, then, be prevented from changing the size of the trust fund. Which of the alternative means of reaching the result should be adopted in the case of discounts — the payment of increments to the life tenant when they are realized, on the sale or payment of the bond, or periodically as they theoretically accrue — is another open question. The periodic payment accords, in the superficial matter of periodicity, with the practice by which premiums are amortized, and a decent argument may be made in support of it. It may be said: There is in theory a fatal tendency for the value of the bond to rise to par as it approaches maturity. If the tendency were sometimes present and sometimes absent, its occasional operation would result in an accidental increase in the value of the estate, by which the remainderman should profit. Since the tendency is always present, so that no profit is involved and the increment belongs to the life tenant, he should have the increment though the trustee, by not selling the bond, prevents it from being realized, and even though counteracting conditions prevent the value of the bond from rising. This course of annual payments will lead, undoubtedly, to sales of trust property from time to time to procure money for the life tenant, and occasionally to a decrease in the whole trust fund. But if the theoretical annual increase in the value of the bond has taken place, there will be no decrease in the value of the whole fund, and when the theoretical increment has failed to take place in a particular year, but is made up later, the decrease in the value of the fund will be only temporary. If the bond fails ever to regain its theoretic value, and neither is nor can be redeemed or sold at that value, the

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[51] "The life tenant . . . is the primary and immediate object of the testator's bounty." Penn-Gaskell's Estate (No. 2), 208 Pa. 346, 348, 57 Atl. 715 (1904). The life tenants, the testator's sons, were "the prominent objects of his bounty." Shaw *v.* Cordis, 143 Mass. 443, 446, 9 N. E. 794 (1887).

principal of the fund will indeed suffer a permanent loss. But this loss will be due to business or market accidents. The bond has not done what was expected of it. Preferred stock is expected to be worth as much ten years from now as now, and if it fails to be, the loss is a loss of principal. A discount bond is expected to be worth more ten years from now than it is now, and if it fails to be, the loss is equally a loss of principal. If it is so treated, and the life tenant is allowed his full theoretic interest, has he profited at the expense of the remainderman? Is the case not rather that he has come out even and the remainderman is suffering from an unfortunate investment?

The reasons for rejecting this argument are overwhelming. The reduction of the trust fund as a whole by the sale of other securities, in order that an income which has not come in may be paid to the life tenant, is as objectionable theoretically as it is practically. When is the process to stop? If the discount bond stops paying interest altogether, is the imaginary appreciation in its value, and the amount of the worthless coupon as well, to be paid to the life tenant out of the trust estate? The bond ought to have produced it, and if produced it would have been income. No more than that can be said for awarding an imaginary appreciation to the life tenant, at the expense of the estate, in any case. In spite of the analogy between premiums and discounts, there is a great difference between periodic amortization and periodic accumulation. When premiums are amortized out of coupons, cash which has actually come in from an investment is put to the account of the person who theoretically ought to have it — the remainderman. If the bond has risen in value, he may not seem to need the money, but at least the money has come in. On the other hand, if the life tenant is given periodic sums to efface a discount, he is given either money which has not come in from the investment but will later, or money which the investment not only has not produced but never will produce. Neither theory nor analogy requires the payment to the life tenant, on account of an investment, of money which that investment has not brought in. The only theory which has been or should be adopted in respect to premiums or discounts is a theory for disposing of money which comes to the trustee. The regular annual enrichment of the life tenant to efface a discount would be analogous not to the mere amortization of a premium out of the cou-

pon on the premium bond, but to the amortization of a premium out of independent items of income when the coupon has not been paid.

The calculations involved in accumulating discounts correspond to those in amortizing premiums, with the difference that the accumulation is realized in a lump and should therefore be paid to the life tenant in a lump, while the premium is recovered in instalments and should therefore be restored to principal in instalments. The rate of interest which the bond will earn should first be determined from a table of bond values. The first coupon, instead of containing, like the coupon on a premium bond, more than interest at this rate, contains less. The difference should be added to the book value of the bond, and, for the second interest period, interest should be reckoned on this increased principal. The value of the bond should be gradually written up, instead of being written off as in the case of premiums; and, just as in the case of premiums, interest should always be reckoned on the current book value. This gives the life tenant interest on his forced savings as well as on the original investment. As some of this reckoned interest — all in excess of the coupon — remains tied up in the bond till it matures or is sold, only the coupon should be paid to the life tenant in the meantime; the rest of the interest should be allowed to accumulate for him and be paid to him, or to his representatives if he is dead, if and when it is realized. This corresponds as closely as the case permits with the first method for amortizing premiums. If the life tenant lives to see the trust estate realize on the bond; or if the trustee disposes of it on the life tenant's death, as he should if practicable;[52] the whole accumulation of earned interest should be turned over to the life tenant or his representatives. If more than the theoretical value of the bond is realized, the excess is of course a profit and belongs to the remainderman. If the trustee retains the bond after the death of the life tenant, so much accumulated interest as is ultimately realized may well be divided between the life tenant's representatives and the remainderman, in the proportion which the period during which the life tenant was entitled to the income from the bond bears to the period during which the remainderman was entitled to it; though, if the bond has a market, an alternative course is evidently to pay to the representatives of the life tenant

[52] In order to determine what income can actually be realized for the period during which the life tenant was entitled to the income.

so much of the interest earned at his death as could then have been realized on sale.

If the rate of accumulation were determined by applying the basic rate of interest always to the purchase price of the bond, instead of to its growing book value, the process would be too slow to be correct in theory or just to the life tenant, and the accumulated interest would not amount to the discount by the time the bond matured. The result would be that some of the life tenant's interest would be paid, when realized, to the remainderman. The withheld increments of interest are tied up in the bond waiting to be paid, and the life tenant is as much entitled to interest on them — when it is realized — as on any other fund. This second, and erroneous, method would correspond to the second method for amortizing premiums, except that the discount bond gives rise to no separate interest-earning fund to correct the error.

To accumulate the entire discount in equal periodic instalments would be as objectionable as to amortize an entire premium in equal periodic instalments, though for a converse reason. As the book value of the discount bond is less in the early years than in the later, less interest is earned at first than later. It follows that if the life tenant is credited with a uniform amount of interest, he is in the early years credited with too much; so that, if the bond were sold at a profit during these early years, a part of what was really profit would appear to be due to the life tenant as interest, and injustice would be done to the remainderman.

The gradual payment to the life tenant of the theoretic increase in the value of the discount bond, without waiting for it to be realized, was the method which presented itself to Judge Holmes as called for if premiums were to be amortized. Naturally he found it inadmissible.[53] If the entire consistency of gradually amortizing

[53] "Again, if the fiction of safety be adopted" (the fiction, *i. e.*, that all trust investments are equally safe, and premiums and discounts reflect differences in rate of interest — a fiction on which the amortization of premiums seemed to Judge Holmes to rest), "I still do not see why it does not follow that, if a bond is bought below par, the tenant for life is equally entitled to an annual increment on the interest received by him as the bond gradually approaches maturity. This was argued in Hemenway *v.* Hemenway, but I must believe that such a doctrine would disconcert trustees not a little. Of course, it would call for sales of capital from time to time to produce funds for the tenant for life beyond the amount received on the bonds." Holmes, J., in New England Trust Co. *v.* Eaton, 140 Mass. 532, 547, 4 N. E. 69 (dissenting opinion).

premiums, and at the same time paying life tenants the increment resulting from discounts only when that increment is realized, had been fairly presented to him, one may doubt whether he would have been led to reject the whole principle of amortization and accumulation.

In summary: 1. The clear weight of authority and the present tendency of the law support the amortization of premiums. 2. Regarding discounts, there is practically no authority. 3. Sound theory requires both the amortization of premiums and the accumulation of discounts. 4. The connection between amortization and accumulation is so close that it may confidently be hoped that accumulation, in some form, will be adopted. 5. The amortization of premiums should, and does, take the form of a series of deductions from coupons for the benefit of principal. These deductions should consist of the difference between the coupon and interest at the basic rate on the latest book value of the bond. 6. Discounts should be accumulated by reckoning interest at the basic rate on the latest book value of the discount bond; but the accumulation should be paid to the life tenant in a lump when, and to the extent that, it is realized on the sale or payment of the bond.

Henry White Edgerton.

CORNELL UNIVERSITY COLLEGE OF LAW.